



**WEST BENGAL STATE UNIVERSITY**  
B.Sc. Honours 1st Semester Examination, 2020, held in 2021

**FNTACOR02T-FOOD AND NUTRITION (CC2)**

**PHYSIOLOGY IN NUTRITION**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

**Answer any four questions from the following**

10×4 = 40

1. Mention the events in the cardiac cycle. What do you understand by blood grouping? Explain. What are the hazards of blood transfusion? 5+3+2
2. What is cardiac output? Mention the factors affecting it. What are the functions of neutrophils and lymphocytes? 2+4+4
3. Explain the factors affecting Oxygen-hemoglobin dissociation curve. How is carbon dioxide transported in blood? What is chloride shift? 4+4+2
4. What is blood coagulation? Explain its mechanism. Mention the importance of vitamin K in blood coagulation. What do you mean by the term anticoagulant? 2+4+2+2
5. What do you understand by the term heart sounds? Explain their significance. Compare between adult and fetal hemoglobin. 2+4+4
6. Define the following (any *five*): 2×5 = 10
  - (a) Blood pressure
  - (b) Lymph
  - (c) Tidal volume
  - (d) Pulse pressure
  - (e) Formed elements
  - (f) Radial pulse.
7. (a) Describe the features of coronary circulation. 4
  - (b) Write a note on: 3+3
    - (i) Functions of platelets
    - (ii) Non-excretory functions of lung.

8. What are the specialized conducting systems of the heart? What is pacemaker potential? Write a note on mechanics of breathing. 4+2+4
9. What is erythropoiesis? Explain the factors affecting it with special reference to nutrients. 4+6

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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